- 2. The adjuvant of claim 1 wherein in said quaternary ammonium glycoside surfactant, the substituent has the formula $(AO)_s(G)_p$, where AO is an alkyleneoxy group with 2-4 carbon atoms, G is a saccharide residue, p is a number from 1 to 10 and s is a number from 1-15.
- 3. The adjuvant of claim 1 wherein said quaternary ammonium glycoside surfactant has the formula

where R is an aliphatic group with 6-24 carbon atoms; R_1 is an aliphatic group with 1-4 carbon atoms or $(AO)_s(G)_p$; R_2 , R_3 and R_4 independently are a group $(AO)_s(G)_p$, an aliphatic group with 1-24 carbon atoms or a hydroxyalkyl group with 2-4 carbon atoms; AO is an alkyleneoxy group with 2-4 carbon atoms; s is 0-15 and Σ s = 1-30; G is a saccharide residue which is connected to the rest of the molecule by a glycosidic bond and the degree of polymerisation p is 0-10; Σ p = 1-20; r = 0-3; y = 2-3; X = CO or $COO(AO)_t(C_qH_{2q})$ or $O(AO)_t(C_qH_{2q})$; n = 0 or 1; n₁ is 0 except when X is CO, then n₁ is 1; q = 2-4; t = 0-4; u = 0 or 1 and v = 0 or 1, provided that the sum (v + Σ u) is 1-3; Z is an anion and z is the charge of the anion Z.

4. The adjuvant of claim 3 comprising a quaternary ammonium glycoside surfactant and which further comprises a quaternary ammonium compound having the formula

where R_6 is independently an aliphatic group with 1-4 carbon atoms or -CH₂CH₂OH; R_7 , R_8 , and R_9 independently are a group (AO)_s, an aliphatic group with 1-24 carbon atoms or a hydroxyalkyl group with 2-4 carbon atoms; I = 0 or 1 and k = 0 or 1, provided that the sum ($k + \Sigma$ I) is 1-3; and R, AO, s, X, n, n₁, y, r, Z and z have the same meaning as in claim 3, in a weight ratio 1:3-9:1.

5. The adjuvant composition of claim 3, where the quaternary ammonium glycoside surfactant has the formula

$$R = N \xrightarrow{\text{(EO)}_{s} (G)_{p}} (EO)_{s} (G)_{p} \qquad \frac{1}{z} Z^{z-} \qquad (III)$$

where R is an aliphatic group with 6-24 carbon atoms; R_1 is an aliphatic group with 1-4 carbon atoms or the group $C_2H_4O(G)_p$; G is a saccharide residue that is connected to the polyethyleneoxy chain by a glycosidic bond and p (the degree of polymerisation) is 0-10; Σ p is 1-15; EO is an ethyleneoxy group; s is 0-12; Σ s is 2-15; Z and z have the meaning mentioned in formula I in claim 3.

6. The adjuvant of claim 5, where the quaternary ammonium glycoside surfactant is present in a mixture with a quaternary ammonium compound having the formula

$$R = N + (EO)_{s}H + \frac{1}{z}Z^{z}$$

$$| (EO)_{s}H + \frac{1}{z}Z^{z}$$

$$| (IV)$$

where R, R_1 EO, Z, z and s, have the same meaning as in formula III in claim 5, except that p in the group R_1 is 0, in a weight ratio 1:3-9:1.

- 7. The adjuvant of claim 3, where $X = O(AO)_t(C_qH_{2q})$ where q is 3; n = 1; r = 0 and v = 1.
- 8. The adjuvant of claim 7 which comprises a quaternary ammonium glycoside and which further comprises a quaternary ammonium compound of the formula

where R_6 is independently an aliphatic group with 1-4 carbon atoms or -CH₂CH₂OH; R_7 , R_8 , and R_9 independently are a group (AO)_s, an aliphatic group with 1-24 carbon atoms or a hydroxyalkyl group with 2-4 carbon atoms; I=0 or 1 and k=1, provided that the sum ($k+\Sigma$ I) is 1-3; R is an aliphatic group with 6-24 carbon atoms; AO is an alkyleneoxy group with 2-4 carbon atoms; s is 0-15; n_1 is 0 except when X is CO, then n_1 is 1; y=2-3; Z is an anion and z is the charge of the anion Z $X=O(AO)_t(C_qH_{2q})$ where q is 3; n=1; and r=0; , wherein the weight ratio of said quaternary ammonium glycoside and said quaternary ammonium compound is 1:3-9:1.

- 9. The adjuvant of claim 3, where n = 0; $n_1 = 0$; r = 1; y = 3; u = 1 and v = 1.
- 10. The adjuvant of claim 9, which comprises, in addition to said quaternary ammonium glycoside, a quaternary ammonium compound of the formula P:\Mancini\PATENT.RM\pst6214prelimamd.doc

$$\begin{bmatrix}
H & (R_{6})_{1} & (R_{6})_{k} \\
| & | & (NC_{y}H_{2y})_{n1} & (NC_{y}H_{2y})_{r}N \\
| & | & | & R_{9} & R_{8}
\end{bmatrix} (k+\Sigma 1)^{+}$$

$$\frac{(k+\Sigma 1)}{z} Z^{z-} (II)$$

where R_6 is independently an aliphatic group with 1-4 carbon atoms or -CH₂CH₂OH; R_7 , R_8 , and R_9 independently are a group (AO)_s, an aliphatic group with 1-24 carbon atoms or a hydroxyalkyl group with 2-4 carbon atoms; I = 1 and k = 1, provided that the sum ($k + \Sigma I$) is 1-3; R is an aliphatic group with 6-24 carbon atoms; AO is an alkyleneoxy group with 2-4 carbon atoms; s is 0-15; n_1 is 0; y = 3; Z is an anion and Z is the charge of the anion Z $X = O(AO)_t(C_qH_{2q})$ where Q is 3; Q is an anion and Q wherein the weight ratio of said quaternary ammonium glycoside and said quaternary ammonium compound is 1:3-9:1.

- 11. The adjuvant of claim 1 wherein said pesticide is a herbicide.
- 12. The adjuvant of claim 11 wherein said herbicide is glyphosate or a salt thereof.
- 13. A pesticide formulation which comprises at least one pesticide and an active amount of a quaternary ammonium glycoside surfactant according to claim 1.
- 14. The pesticide formulation of claim 13 wherein the amount of quaternary ammonium glycoside surfactant is between 20-200% by weight calculated on the amount of pesticide present in the formulation.
- 15. The pesticide formulation of claim 13, which contains 0.01-99.9% by weight of a pesticide, 0-40% by weight of ammonium sulphate and an amount of 0.01-70% by weight of by weight of an adjuvant, wherein said adjuvant comprises:
 - i) at least one quaternary ammonium glycoside surfactant of the formula

where R is an aliphatic group with 6-24 carbon atoms; R_1 is an aliphatic group with 1-4 carbon atoms or $(AO)_s(G)_p$; R_2 , R_3 and R_4 independently are a group $(AO)_s(G)_p$, an aliphatic group with 1-24 carbon atoms or a hydroxyalkyl group with 2-4 carbon atoms; AO is an alkyleneoxy group with 2-4 carbon atoms; s is 0-15 and Σ s = 1-30; G is a saccharide residue which is connected to the rest of the molecule by a glycosidic bond and the degree of polymerisation p is 0-10; Σ p = 1-20; r = 0-3; y = 2-3; X = CO or $COO(AO)_t(C_qH_{2q})$ or $O(AO)_t(C_qH_{2q})$; n = 0 or 1; n_1 is 0 except when X is CO, then n_1 is 1; q = 2-4; t = 0-4; u = 0 or 1 and v = 0 or 1, provided that the sum $(v + \Sigma u)$ is 1-3; Z is an anion and z is the charge of the anion Z; and

ii) at least one quaternary ammonium compound of the formula

$$\begin{bmatrix} H & (R_{6})_{1} & (R_{6})_{k} \\ R(X)_{n} (NC_{y}H_{2y})_{n1} (NC_{y}H_{2y})_{r}N & \\ R_{9} & R_{8} \end{bmatrix} (k+\Sigma 1)^{+}$$

$$\frac{(k+\Sigma 1)}{z} Z^{z-} (II)$$

where R_6 is independently an aliphatic group with 1-4 carbon atoms or -CH₂CH₂OH; R_7 , R_8 , and R_9 independently are a group (AO)_s, an aliphatic group with 1-24 carbon atoms or a hydroxyalkyl group with 2-4 carbon atoms; I=0 or 1 and k=0 or 1, provided that the sum ($k+\Sigma$ I) is 1-3; R is an aliphatic group with 6-24 carbon atoms,

AO is an alkyleneoxy group with 2-4 carbon atoms; s is 0-15 and Σ s = 1-30; X = CO or COO(AO)_t(C_qH_{2q}) or O(AO)_t(C_qH_{2q}); n = 0 or 1; n₁ is 0 except when X is CO, then

 n_1 is 1; r = 0-3; y = 2-3; Z is an anion and z is the charge of the anion Z; wherein the weight ratio of I) to ii) is 1:3-9:1.

- 16. The formulation of claim 15, wherein the formulation is in liquid form and that the pesticide is glyphosate or a salt thereof, which is present in an amount of 0.02-70% by weight.
- 18. The fertilizer formulation of claim 19 which comprises 0.0001-99.9% by weight of a fertilizer and an amount of 0.0001-70% by weight of an adjuvant, wherein said adjuvant comprises:
 - i) at least one quaternary ammonium glycoside surfactant of the formula

where R is an aliphatic group with 6-24 carbon atoms; R_1 is an aliphatic group with 1-4 carbon atoms or $(AO)_s(G)_p$; R_2 , R_3 and R_4 independently are a group $(AO)_s(G)_p$, an aliphatic group with 1-24 carbon atoms or a hydroxyalkyl group with 2-4 carbon atoms; AO is an alkyleneoxy group with 2-4 carbon atoms; s is 0-15 and Σ s = 1-30; G is a saccharide residue which is connected to the rest of the molecule by a glycosidic bond and the degree of polymerisation p is 0-10; Σ p = 1-20; r = 0-3; y = 2-3; X = CO or $COO(AO)_t(C_qH_{2q})$ or $O(AO)_t(C_qH_{2q})$; n = 0 or 1; n₁ is 0 except when X is CO, then n₁ is 1; q = 2-4; t = 0-4; u = 0 or 1 and v = 0 or 1, provided that the sum (v + Σ u) is 1-3; Z is an anion and z is the charge of the anion Z; and

ii) at least one quaternary ammonium compound of the formula

$$\begin{bmatrix} H & (R_{6})_{1} & (R_{6})_{k} \\ | & | & | & (k+\Sigma L)^{+} \\ R(X)_{n} (NC_{y}H_{2y})_{n1} (NC_{y}H_{2y})_{r}N & & & (k+\Sigma L) \\ | & | & | & | & R_{7} \\ | & | & | & R_{8} \end{bmatrix}$$

where R_6 is independently an aliphatic group with 1-4 carbon atoms or -CH₂CH₂OH; R_7 , R_8 , and R_9 independently are a group (AO)_s, an aliphatic group with 1-24 carbon atoms or a hydroxyalkyl group with 2-4 carbon atoms; I = 0 or 1 and k = 0 or 1, provided that the sum ($k + \Sigma$ I) is 1-3; R is an aliphatic group with 6-24 carbon atoms,

AO is an alkyleneoxy group with 2-4 carbon atoms; s is 0-15 and Σ s = 1-30; X = CO or COO(AO)_t(C_qH_{2q}) or O(AO)_t(C_qH_{2q}); n = 0 or 1; n₁ is 0 except when X is CO, then n₁ is 1; r = 0-3; y = 2-3; Z is an anion and z is the charge of the anion Z; wherein the weight ratio of I) to ii) is 1:3-9:1.

Please add the following new claims:

- 19. A fertilizer formulation which comprises at least one fertilizer and an active amount of a quaternary ammonium glycoside surfactant according to claim 1.
- 20. The fertilizer formulation of claim 19 wherein the amount of quaternary ammonium glycoside surfactant is between 20-200% by weight calculated on the amount of fertilizer present in the formulation.

Remarks

This is an international application filed under the Patent Cooperation Treaty (PCT) on February 10, 2000. The claims have been amended herein in order to eliminate multiple dependencies and to place them in ideal condition for U.S. prosecution.